

## IN THE SPECIFICATION.

Please replace the paragraph beginning on page 16, line 9 with the following paragraph:

It will be appreciated that a symbolic model checking operation may benefit significantly from a reduction in the number of transition relations used to represent a model. A further reduction may be accomplished if for each property to be evaluated, only the necessary portions of the model are represented. For one embodiment of a dynamic transition relation pruning technique, a method is disclosed that improves the efficiency for symbolic model checking computations by pruning transition relations under assumptions dynamically generated from the properties being evaluated (e.g. in accordance with a property's corresponding logical structure), thereby providing means to handle very large scale integrated circuits and other finite state systems of problematic complexity for prior methods.

Please replace the paragraph beginning on page 16, line 19 with the following paragraph:

Figure 5a illustrates, for example, a parsing of a property 510,  $a \Rightarrow (b \Rightarrow X(Xf))$  in accordance with one corresponding logical implication structure of property 510. At the first stage the property is parsed into a root 500 representing the logical implication operation, a left sub-property 506 representing the variable,  $a$ , and a right sub-property 511 representing  $b \Rightarrow X(Xf)$ . The operator  $X$  indicates that its predicate argument holds at the next transition.

Please replace the paragraph beginning on page 20, line 18 with the following paragraph:

It will be appreciated that a property may be considered a sub-property of itself. It will also be appreciated that an assumption produced from a sub-property to be evaluated may be used to prune a transition relation in a variety of ways. It can be observed in Figure 6a through Figure [[6e]] 6d that a significant reduction in state storage may be achieved through dynamic model pruning.